

REMARKS

Claims 1-21 were examined and rejected in a subject Final Office action dated February 24, 2009. In response thereto, each independent claims 1, 15, 19-21 have been amended and claims 2-14, 16, and 17 currently pending in the subject application and are presently under consideration as shown on pp. 2-5 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-17 and 19-21 Under 35 U.S.C. §103(a)

Claims 1-17 and 19-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mitchell (US 5,903,278) in view of Berry (US 7,107,543). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. The combination of Mitchell and Berry fails to teach all of the claim limitations.

“Under 35 U.S.C. 103 where the examiner has relied on the teachings of several references, the test is whether or not the references viewed individually and collectively would have suggested the claimed invention to the person possessing ordinary skill in the art. It is to be noted, however, that citing references which merely indicated that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. That is to say, there should be something in the prior art or a convincing line of reasoning in the answer suggesting the desirability of combining the references in such a manner as to arrive at the claimed invention... [I]t would not have been obvious to modify [the prior art] ... without using [the patent application's] claims as a guide. It is to be noted that simplicity and hindsight are not proper criteria for resolving the issue of obviousness.” Ex parte Hiyamizu, 10 USPQ2d 1393 (BPAI 1988).

Independent claim 1 recites a system for manipulating a domain specific language instance model via a diagram that comprises in part an object model application program interface that includes a control that facilitates access to the diagram, **the control maintaining state information associated with the diagram and with an underlying data document, employing a common framework to keep both the diagram and underlying data synchronized**, a computer readable storage medium comprising sets of code and data structures for causing a computer to **modify the diagram with the object model application program**

interface, wherein underlying data document is a domain specific language model representing both model elements and presentation elements. The amendment is supported at least by the Abstract, Paragraphs 0002, 0006, 0071, 0078, model element of dependent claim 8, and presentation element of dependent claim 11. Further, usage such as in Paragraph 0183 would be understood by one of ordinary skill in the art to be describing “domain specific language model”.

In rejecting claim 1, the Examiner generally relied upon Mitchell, except relying on Berry to teach an object role modeling (ORM). Instead, Mitchell teaches a method for analyzing an image rendered by a graphics application and means for tracing the primitive API calls to a graphics library used to render an image. Such lower level analysis of image rendering fails to teach or suggest visualizing a domain language instance model nor enabling the claimed interactions such as modifying the diagram with an object model API.

Reconsideration and allowance is respectfully requested for claim 1 and claims 2-14 that depend there from.

Independent claim 15 recites employing a control to access a diagram and storing at least one shape element contained by the diagram, wherein **each shape is directly linked to a domain specific language elements that the shape represents thereby facilitating manipulation of a domain specific language instance model via the diagram.** The amendment is supported on at least the same basis as given above for claim 1.

Claim 15 was rejected on the same basis as claim 1. However, the cited references fail to teach or disclose manipulating a domain specific language instance model via the diagram. Reconsideration and allowance is respectfully requested for claim 15 as well as claims 16 and 17 that depend there from.

Independent claim 19 recites in part a diagram component that stores at least one shape element and has a graph object employed for **hittesting for testing a shape that has been user dropped by dragging.** Support for the amended feature are provided at least by claim 13 and paragraph 0066. In rejecting this feature in claim 13, the Examiner stated that “Mitchell as modified further teaches the diagram having a graph object employed for hittesting for testing a shape that has been user dropped by dragging (lines 25-41 column 7).” This cited excerpt in its entirety provides the following:

FIG. 7 shows image 60 re-rendered so that colors shown indicate the number of vertices used to render each portion of image 60. Type indicator 74 of legend 75 indicates the number of vertices is color-coded in re-rendered image 60. Category indicator 73 of legend 75 indicates which colors indicate which number of vertices. Analyzer tool 25 is able to determine how many vertices are used to generate each portion of re-rendered image 60 by information from API events which analyzer tool 25 receives from graphics library 22. The vertex categories shown by legend 75 are "0-2", "3-4", "5-6", "9-10", "11-12", "13-14", "15-16", "17-18" and "19+". As can be seen from FIG. 7, analyzer tool 25 indicates trees 71 within image 60 are constructed using 3-4 vertices, as indicated by the orange-colored color of trees 71. Likewise, as can be seen from FIG. 7, analyzer tool 25 indicates skier 72 within image 60 is constructed using 19+ vertices, as indicated by the green color of skier 72.

Mitchell fails to mention any user interactions but confines its teachings in this excerpt to analyzing a colored rendering of vertices. Moreover, Mitchell fails to provide any teaching or suggestion remotely related to "hittesting" wherein a shape is dropped by the user. Consequently, the cited references fail to render claim 19 unpatentable for failing to teach all of the limitations of the claim. Reconsideration and allowance is respectfully requested or claim 19.

Independent claim 20 recites in part at least one shape element having a child shape element. The claim amendment is supported at least by claim 10. In rejecting this feature of claim 10, the Examiner relied upon Mitchell at FIG. 4. However, "FIG. 4 shows a display of a graphical application." (Col. 2, line 57) This depiction is explained in Col. 6, lines 16-22:

FIG. 4 shows a display window 50 generated by graphics application 21 and shown on monitor 12. Display window 50 is generated, for example by an HP Model Viewer graphics application available from Hewlett-Packard Company. Graphics application 21 uses graphics library 22 to generate a three-dimensional image 51 within display window 50.

Mitchell thus fails to provide any teaching of a child shape element. Disclosures through the specification provide a consistent usage of child class providing support for this feature. By contrast, Mitchell does not teach a programming methodology that gives meaning to a child element. Instead, the relied upon FIG. 4, to the extent that its teaches a parent-child element relationship shows block people skiing. Reconsideration and allowance is respectfully requested for claim 20.

Independent claim 21 recites in part rendering shapes of the diagram that are responsible for painting themselves and for responding to user interaction via a user interface, **making**

implementation very light weight and independent of any specific diagram. The highlighted portion is supported at least by dependent claim 6 and by paragraph 0076.

In rejecting claim 21, the Examiner rejected claim 21 on the same basis as claims 1, 6 and 7. In particular, in rejecting the limitation for diagram and the shape element being responsible for painting themselves, Mitchell was relied upon at Column 8, lines 2-17:

FIG. 14 is a simplified block diagram which shows a graphics pipeline 120 within graphics library 22. Within graphics pipeline 121 there is a stream-line path 121, a general path 122 and a geometry accelerated path 123. FIG. 9 shows details of option dialog box 100. In a color attributes section 101, a user can select what colors of image 60 indicate. If "None" is selected, analyzer tool 25 generates three-dimensional image 60 using the same colors used for the display of original three-dimensional image 51 generated by graphics application 21, as shown in FIG. 5. If "Scheduling" is selected, analyzer tool 25 generates three-dimensional image 60 so that colors shown indicate the scheduling path used to render each portion of image 60, as shown in FIG. 8. If "Primitive Type" is selected, analyzer tool 25 generates three-dimensional image 60 so that colors shown indicate the primitive type used to render each portion of image 60, as shown in FIG. 6. If "Number of Vertices" is selected, analyzer tool 25 generates three-dimensional image 60 so that colors shown indicate the number of vertices used to render each portion of image 60, as shown in FIG. 7.

The cited teaching of Mitchell fails to teach a diagram or shape element being responsible for painting themselves. Mitchell instead teaches a user selection for rendering a three-dimensional image 60. Reconsideration and allowance is respectfully requested for claim 21.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP570US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,
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